

REMARKS

Applicant respectfully requests reconsideration of this application in view of the foregoing amendments and the following remarks.

CLAIM STATUS

Claims 1-14, 16-18, 20, 21, 23-25 and 27-29 are pending in this application. Of the pending claims, claims 1, 3, 5, 7, 9, 11, 13, 16, 18, 20, 23, 25 and 27-29 are independent in form. Claims 13, 14, 18, 20, 21, and 25 have been allowed and claims 1-12, 16, 17, 23, 24 and 27-29 have been rejected. Claims 1, 3, 5, 7, 9 and 11 are herein amended. No new matter has been added.

CLAIM REJECTIONS

Claims 1-12 are rejected under 35 U.S.C. §103(a) as being unpatentable over Kawasaki et al. (U.S. Pat. No. 5,331,367)(“Kawasaki”) in view of Suda et al. (U.S. Published App. 2002/0109784)(“Suda”). Claims 16, 17, 23, 24 and 27-29 are rejected under 35 U.S.C. §103(a) as being unpatentable over Suda in view of Sekine et al. (U.S. Pat. No. 5,587,737)(“Sekine”). Applicant respectfully traverses the stated rejections as follows.

Response to Applicant’s Arguments:

With reference to the arguments proffered by Applicant in their previous response, the Examiner points out that “one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references.” (See page 2 of the Office Action.)

While Applicant does not dispute the Examiner’s statement of the law, Applicant respectfully disagrees with the Examiner’s position. Applicant pointed out that the individual

references did not in fact teach the claimed subject matter attributed to them in forming the rejecting combinations. Applicant again asserts that, as the prior art references do not disclose or suggest the individual teachings attributed to them by the Examiner in forming the rejections, a prima facie case of obviousness was not in fact made out because even if the references were properly combinable, the formed combination does not teach or suggest all of the claimed elements. Applicant also believes this to be the case for the pending rejections as will be discussed infra and submits that the claims as presented herein are patentably distinct over the art of record.

Applicant has nonetheless herein amended independent claims 1, 3, 5, 7, 9 and 11 have been amended to further clarify the claimed invention and additionally require “maintaining an in-focus state.” These limitations are supported by disclosure throughout the application, see e.g. pages 38-41 and 49-55, thus no new matter has been added. Moreover, this limitation is not taught or suggested, and therefore not obvious in view of, the prior art of record. Accordingly, Applicant respectfully requests allowance of these claims for reasons as will be stated hereinbelow.

Claims 1-12

The inventions recited in claims 1-12 are characterized, inter alia, in that the zooming speed is changed on the basis of the shutter speed (charge storage time). By virtue of this feature, the problem that the correcting operation of movement of the focal plane in a zooming operation cannot follow the object when the charge storage time becomes long, and thereby the interval between timings at which the focus evaluation values are obtained becomes long, can be solved.

In Kawasaki, on the other hand, a special effect that a background of a photographing object is radially diffused or converged is obtained by zooming a lens in an exposure time period. In column 59 of Kawasaki, it is disclosed that the zooming speed is selected on the basis of the charge storage time. The cited reference Kawasaki does not disclose that the zooming speed and the focusing speed are changed on the basis of the shutter speed (charge storage time) as claimed. Therefore, the present invention is clearly different from Kawasaki in its structure and function, in at least this regard.

In the cited reference Suda, a position of a focal plane, which moves in accordance with movement of a zooming lens, is compensated by moving a focus lens based on an electronic cam locus and result of focus detection.

Therefore, neither of the cited references Kawasaki and Suda, alone or in combination, disclose at least the claimed feature of the present invention that “the control step of controlling to change a zoom speed and a focus speed for maintaining an in-focus state in the zooming step in accordance with a shutter speed so that the focusing operation is able to follow an object during the zooming operation.”

Claims 16, 17, 23, 24 and 27-29

The inventions as recited in claims 16, 17, 23, 24 and 27-29 are characterized, inter alia, in that an averaging time of a focus evaluation value that represents a sharpness of an image is changed on the basis of a brightness of an photographing object, blurring amount or zooming speed, etc.

In the cited reference Sekine, a correction parameter of a blur correction system is changed on the basis of an accumulation time of an image sensor.

With respect to independent claims 16, 23, and 28, the cited references Suda and Sekine do not, in combination or individually, disclose that a focus detection characteristic in zooming operation is improved by changing an averaging time of a focus evaluation value (sharpness signal) that represents a sharpness of an image, on the basis of a illumination of an photographing object.

With respect to independent claims 27 and 28, the cited references alone or in combination, do not disclose that a focus detection characteristic in zooming operation is improved by changing an averaging time of a focus evaluation value (sharpness signal) that represents a sharpness of an image, on the basis of zooming speed.

With respect to independent claim 29, the cited references individually or in combination, do not disclose that a focus detection characteristic in zooming operation is improved by changing an averaging time of a focus evaluation value (sharpness signal) that represents a sharpness of an image, on the basis of blurring information.

Sekine merely discloses that a blur correction characteristic is controlled on the basis of the accumulation time, but does not disclose an operation that is related with zooming.

Therefore, Kawasaki, Suda and Sekine, taken individually or in combination, do not teach or suggest alone or in combination with other references of record, and therefore do not anticipate or render obvious, the present invention as recited in the independent claims. The present invention as recited in each of the independent claims is clearly distinguishable from the

cited art in at least the several respects stated above and neither anticipated by nor rendered obvious in view of Kawasaki, Suda and Sekine, taken individually or in combination for at least the reasons stated.

Dependent Claims

Applicant traverses the rejections of the dependent claims but has not independently addressed the rejections of the dependent claims 2, 4, 6, 8, 10, 12, 17 and 24 because Applicant submits that, in view of the foregoing, the dependent claims are in condition for allowance for at least similar reasons as the independent claims from which they depend. Applicant however, reserves the right to address any individual rejections of the dependent claims should such be necessary or appropriate.

Accordingly, Applicant submits that the claims as herein presented are allowable over the prior art of record, taken alone or in combination, and that the respective rejections be withdrawn.

CONCLUSION

Applicant submits that the application is hereby placed in condition for allowance which action is earnestly solicited.

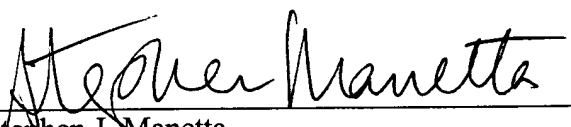
In the event that a telephone conference would facilitate prosecution of the instant application in any way, the Examiner is invited to contact the undersigned at the telephone number provided.

Applicant believes that no fees or extensions of time are necessary for the submission of this Amendment, however, should an extension of time be required to render this filing timely, or should any additional fees be due, such extension is hereby petitioned, and the Commissioner is hereby authorized to charge any necessary fees or credit any overpayment, to Deposit Account No. 13-4500, Order No. 1232-4512.

Respectfully submitted,
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Dated: April 28, 2004

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